

Campylobacter Blood Free Medium Base

Selective medium for detection of *Campylobacter* spp from clinical specimens and other materials, according to ISO 10272.

TYPICAL FORMULA	(g/l)
Meat Extract	10.0
Enzymatic Digest of Animal Tissues	10.0
Sodium Chloride	5.0
Charcoal	4.0
Enzymatic Digest of Casein	3.0
Sodium Deoxycholate	1.0
Iron(II) Sulfate	0.25
Sodium Pyruvate	0.25
Agar	12.0
Final pH 7.4 ± 0.2 at 25°C	

DESCRIPTION

Campylobacter Blood Free Medium Base is a selective medium used with supplements for the isolation and enumeration of *Campylobacter* spp from food, environmental samples and clinical specimens.

The complete medium, also known as modified charcoal cefoperazone deoxycholate agar (mCCDA), is formulated according to the APHA and ISO 10272 and was developed to replace blood with charcoal, ferrous sulfate and sodium pyruvate.

PRINCIPLE

Meat extract, enzymatic digest of animal tissues and enzymatic digest of casein provide amino acids, nitrogen, carbon, minerals, vitamins and other nutrients for organisms growth. Sodium chloride maintains the osmotic balance of the medium. Charcoal absorbs toxic compounds and metabolites. Sodium deoxycholate inhibits most Gram-positive bacteria. Ferrous sulfate and sodium pyruvate are oxygen scavengers. Agar is the solidifying agent.

Supplementation with Campylobacter CCDA Supplement (ref. 81037), containing Cefoperazone and Amphotericin B, inhibits the accompanying microbial flora.

PREPARATION

Suspend 45.5 g of powder in 1 liter of deionized or distilled water. Bring to boil and shake until completely dissolved. Sterilize at 121°C for 15 minutes. Cool up to 45-50°C. Aseptically, add rehydrated content of 2 vials (10 ml) of Campylobacter CCDA Supplement. Mix well. Pour in Petri dishes.

TECHNIQUE

Inoculate the plates by directly spreading the sample material over the agar surface (*). Incubate at 41.5°C for 40-48 hours in a microaerobic atmosphere (approximately 5-6% oxygen, 3-10% CO₂ and 84-85% nitrogen).

* ISO 10272 recommends to perform a first enrichment step in Bolton Broth (ref. 470340) prior to inoculate the mCCDA.

INTERPRETATION OF RESULTS

Examine the plates for typical colonies of *Campylobacter* spp which appear greyish, flat and moist, often with a metallic sheen and a tendency to spread. Other form of colonies may occur.

For confirmation of *Campylobacter* spp, subculture suspected colonies to Columbia Blood Agar plates (ref. 11025) and examine pure cultures for morphology, motility, microaerobic growth at 25°C, aerobic growth at 41.5°C and oxidase activity.

STORAGE AND TRANSPORT CONDITIONS

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for *in vitro* diagnostic use only and must be used by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

- EN ISO 11133:2014. Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media.
- ISO 10272-1:2006. Microbiology of food and animal feeding stuffs – Horizontal method for detection and enumeration of *Campylobacter* spp. – Part 1: Detection method. – Part 2: Colony-count technique.
- MAFF Validated Methods for the Analysis of Foodstuffs (1993) Method for the detection of thermotolerant *Campylobacter* in Foods. J. Assoc. Publ. Analysts. 29: 253-262.
- Vandersant C et al. (1992) Compendium of Methods for Microbiological Examination of Food. 3rd Edition. American Public Health Association. Washington D.C.
- Bolton F.J., D.N. Hutchinson and D. Coates (1984) J. Clin. Microbiol. 19: 169-171.



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PRODUCT SPECIFICATIONS

NAME

Campylobacter Blood Free Medium Base

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGING

Ref.	Content	Packaging
610130	500 g	500 g of powder in plastic bottle
620130	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM

7.4 ± 0.2

USE

Campylobacter Blood Free Medium Base is a selective medium used with supplements for the isolation and enumeration of *Campylobacter* spp from food, environmental samples and clinical specimens, according to ISO 10272

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Powder medium

Appearance: free-flowing, homogeneous

Colour: grey-black

Ready-to-use medium

Appearance: opaque

Colour: black

SHELF LIFE

4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
Inoculum for productivity: 50-100 CFU
Inoculum for selectivity: 10⁴-10⁶ CFU
Incubation Conditions: 40-48 h at 41.5 ± 1°C, in microaerobic atmosphere

Microorganism








Campylobacter jejuni
Campylobacter jejuni
Escherichia coli
Staphylococcus aureus

WDCM 00156
WDCM 00005
WDCM 00013
WDCM 00034

Growth

Good
Good
Inhibited
Inhibited

TABLE OF SYMBOLS

LOT Batch code	IVD <i>In vitro</i> Diagnostic Medical Device	 Manufacturer	 Use by	 Fragile, handle with care
REF Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult instructions for use	 Do not reuse



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